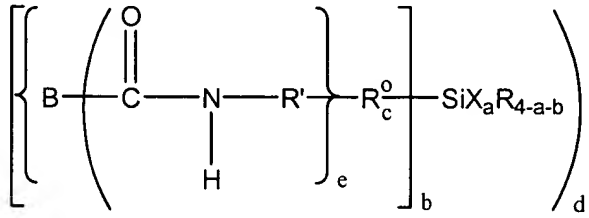
ABSTRACT

The invention relates to hydrolyzable and polymerizable silanes of formula (I), methods of preparing the same, and their use in the production of silica polycondensates, silica heteropolycondensates, polymers, heteropolymers, and other products.



(I)

B = straight-chain or branched substituted or unsubstituted organic radical having 2 to 50 carbon atoms comprising one or more acrylate and/or methacrylate groups, the -CO-NH- group in the formula I being bonded to a carbon atom of the radical B, and B containing no norbornene, bicyclo[2.2.2]oct-2-ene or 7-oxabicyclo[2.2.1]hept-2-ene group;

R = optionally substituted alkyl, alkenyl, aryl, alkylaryl or arylalkyl, each having 1 to 15 carbon atoms, it being possible for these radicals to contain oxygen and/or sulfur and/or nitrogen atoms;

R^o = optionally substituted alkylene, alkenylene, arylene, alkylenearylene or arylenealkylene, each having 1 to 15 carbon atoms, it being possible for these radicals to contain oxygen and/or sulfur and/or nitrogen atoms;

R' = optionally substituted alkylene, alkenylene, arylene, alkylenearylene or aryleneakylene, each having 1 to 15 carbon atoms, it being possible for these radicals to contain oxygen and/or sulfur and/or nitrogen atoms;

X = hydrogen, halogen, hydroxyl, alkoxy, acyloxy, alkylcarbonyl, alkoxycarbonyl or $NR"_2$, where R" is hydrogen, alkyl or aryl;

a = 1, 2 or 3;

b = 1, 2 or 3, and a+b = 2, 3 or 4;

c = 0 or 1;

d = 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10;

e = 1.